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Interesting color forms of the European tree frog, *Hyla arborea* (Linnaeus, 1758) (Amphibia: Ranidae) from Croatia

Raznolikost tipova obojenosti kod gatalinke, *Hyla arborea* (Linnaeus, 1758) (Amphibia: Ranidae) u Hrvatskoj

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The European tree frog, *Hyla arborea* (LINNAEUS, 1758), is known to change colors in response to different factors. The color change is due to the changes in xanthophores, iridophores and melanophores (NIELSEN, 1984). The color adaptation depends on the degree of the lightness of the background, but the former also shows a certain adaptation to the purity (NIELSEN, 1984). For this species, more than one factor must therefore be regulating the adaptive color change. KING ET AL. (1994) proved that in a similar tree frog species, *Hyla cinerea*, color changes depend on the coloration of the background (e.g. they become lighter in the light background) and the temperature of the water (they become lighter at higher temperatures). So such behaviour may function both as predatory avoidance and in thermoregulation of the water balance (KING ET AL. 1994). It has also been shown that adrenaline causes an increase in lightness in *H. arborea* (NIELSEN, 1978). Most common colors are yellow green, light green, green, dark green, black-green, olive green and grey colors (NIELSEN, 1984).

The aim of this paper is to present records of different color forms of *Hyla arborea* recorded in different parts of Croatia. Color forms were noted in different places in Croatia during the last few years. As it can be seen from pictures 1-8, *H. arborea* shows a great pallet of different colorations, ranging from dark green form (Fig. 1), green-grey (Fig. 2-3), grey (Fig. 4-5), brown (Fig. 6-7) and even marbled green (Fig. 8). Even if *H. arborea* shows a wide pallet of colors, it seems that such color variations are not so commonly found. In most cases, the three frogs with different colorations were singled out from a population of typically green frogs. But for example, pictures 1, 2 and 7 were taken during the same night, in a forest park Grmošćica, in Zagreb. However, even in this example, green forms prevailed with approximately 50 green frogs observed, of which only this tree had different coloration.

REFERENCES

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Figure 1. Zagreb, Grmošćica, 16.4.2010.

Figure 2. Zagreb, Grmošćica, 16.4.2010.

Figure 3. Turopoljski lug, 9.3.2009.

Figure 4. Donji Miholjac, Drava, 22.4.2006.

Figure 5. Gorski kotar, Sunger, 9.6.2007.

Figure 6. Baranja, Batina, 10.5.2009.

Figure 7. Zagreb, Grmoščica, 16.4.2010.

Figure 8. Baranja, Batina, 11.5.2009.